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LEVEL DISPLAY MODE OF WINDOW MENU

(Uindo Menyu no Hyoji Hoshiki)

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UNITED STATES PATENT AND TRADEMARK OFFICE

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(54) [Title of the Invention]

Level Display Mode of Window Menu

(57) [Abstract]

[Purpose] To improve the operability of a system by allowing a user of a window menus to easily recognizes the present hierarchical level.

[Constitution] For example, a frame pattern file **3** is provided with a menu file **2** of a network management device **1**, and a color pattern of frame corresponding to the hierarchical level of said menu is stored in this frame pattern file **3**. Then, a frame of corresponding color is displayed together with the menu, and a user can know the present hierarchical level by seeing a color of this frame.

1 network management device

2 menu file

3 frame pattern file

I red II green III yellow

4 function routine file

5 data file

6 menu control unit

¹Numbers in the margin indicate pagination in the foreign text.

7 function execution control unit
8 display processing unit
9 input processing unit
10 display device
11 keying device

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[Claims]

[Claim 1] A level display mode of window menu, characterized by having a means for keeping a frame of color corresponding to the level of a menu for enclosing the menu, selecting the frame of color corresponding to the level of said menu in displaying said menu on a screen and displaying said color frame together with the menu

in a system having a menu with a hierarchical structure given by a window.

[Claim 2] The level display mode of window menu of Claim 1, which is made by having a frame pattern file connecting with a menu control unit and storing a color pattern of frame which indicates each level in the form of commands within this frame pattern file or in the form of compressed data.

[Detailed Description of the Invention]

[0001]

[Field of Industrial Application] This invention relates to a menu mode in a network management device, etc., and particularly to

a mode for easily knowing and indicating the level of menu during display in a menu of hierarchical structure given by a window.

[0002]

[Prior Art] In latest network management systems, various devises have been concentrated so that a user can easily master a system even if he did not learn enough knowledge about it. Particularly, when processings based on a form of dialog by using a display terminal, a user generally takes a method which enables easily select and control desired processings or operations. In this case, when usable system functions (routine) are numerous and complicated, it is efficient to seek the grouping and the structure hierarchization and select them by using hierarchized window menus corresponding thereto. Fig. 3 shows one construction example of window menus with a hierarchical structure. Moreover, I, II, III indicate levels of said menus of a hierarchical structure.

[0003]

[Subject to Be Solved by the Invention] The burden of a user is markedly reduced by using window menus of such a hierarchical structure to take a control of system, but the user still loses sight of his own position in the hierarchical structure, i. e., a present level and does know a direction for fetching an objective menu. Consequently, there were such problems that an operation is wrong or such a bad impression that this is a hard-to-use system is given to the user. The purpose of this invention consists in providing a level display mode which enables to simply know the

present hierarchical level based on a menu picture.

[0004]

[Means for Solving the Subject] The level display mode of this invention has a means for keeping a frame of color corresponding to the level of a menu for enclosing a menu, selects the frame of color corresponding to the level of said menu in displaying said menu on a screen and displays it together with the menu. For example, it has a frame pattern file connecting with a menu control unit and stores a color pattern of frame which indicates each level in the form of commands within this frame pattern file or in the form of compressed data.

[0005]

[Functions] This invention has no need to search for a specific level display region and can easily realize the level recognition because a user can know each level based on a color of menu frame.

[0006]

[Actual Examples] Subsequently, this invention will be illustrated with reference to drawings. Fig. 1 is the block diagram of a network management system being one actual example of this invention. In the diagram, **1** is a network management device, **2** is a menu file, **3** is a menu frame pattern file, **4** is a function routine file, and **5** is a data file. Said network management device **1** is composed of a menu control unit **6**, a function execution control unit **7**, a display function unit **8** and an input processing

unit **9**. Moreover, **10** is a display device and **11** is a keying unit.

[0007] Here, each element menu of a menu system with a hierarchical structure has a code for identifying a level which a menu belongs to (I, II, III) and is stored in the menu file **2**, respectively. A color pattern of frame indicating each menu level is stored in the menu frame pattern file **3** in the form of commands or in the form of compressed data. In this example, the level I is set to red, the level II is set to green, and the level III is set to yellow. The routine of functions selected on the menu is stored in the function routine file **4**. Moreover, parameters or data used in the network control are stored in the data file **5**.

[0008] According to this system, the menu control unit **6** fetches a system menu of level I from a menu file **2**, and then displays it on the screen in the display device **10** via the display unit. At this time, a color frame equivalent to the level I is selected from the menu frame pattern file **3** as a color of menu frame and displayed together. A case wherein this invention is applied to an illustrated menu is shown in Fig. 2 and Fig. 3. A user inputs instructions by a cursor key, execution keys, an end key, etc. from a keying device **11**, and continues to operate devices to select necessary menu pictures in order, select functions, execute processings thereof, call other menu pictures to select different functions and execute processings, etc. In this case, the upgoing and downgoing of levels of selected menus are repeated. However, frames of colors corresponding to those levels

are shown in any menu pictures and present levels of menus are known visually and immediately, therefore the user can easily know

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clues of whether he goes down or up to select next desired menu pictures.

[0009] Moreover, the function execution control unit **7** executes instructed processings by selecting a routine corresponding to functions selected on the menu pictures and using data of said data file **5** according to demand. Furthermore, the information keyed from the keying device **11** is analyzed by the input processing unit and is notified to the menu control part **6** or the function execution control unit **7** according to contents such as commands, data, etc.

[0010]

[Effects of the Invention] As described above, this invention enables to simply know the present hierarchical levels by visually catching frame colors of menu pictures and markedly improve the operability of system because it has a means for keeping a frame color corresponding to the level of menu and displays the frame of color corresponding to the level of menu in displaying said menu on a screen. Moreover, this invention enables to avoid the hardness of screen, not compete with other data display regions and seek an effective use of screen.

[Brief Description of the Drawings]

[Fig. 1] Block diagram of system in one actual example of present invention.

[Fig. 2] Illustrative diagram of window menu pictures of present invention.

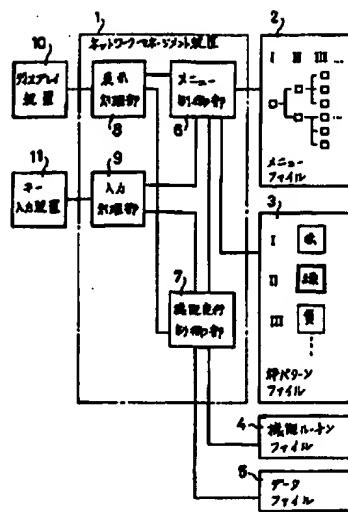
[Fig. 3] Illustrative diagram of window menus with common hierarchical structure.

[Description of the Symbols]

- 1** network management device
- 2** menu file
- 3** frame pattern file
- 4** function routine file
- 5** data file
- 6** menu control unit
- 7** function execution control unit
- 8** display processing unit
- 9** input processing unit
- 10** display device
- 11** keying device

[Fig. 1]

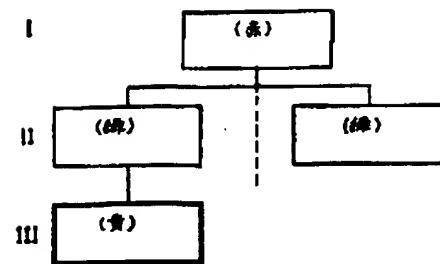
〔圖1〕



- 1 network management device
- 2 menu file
- 3 frame pattern file
- 4 function routine file
- 5 data file
- 6 menu control unit
- 7 function execution control unit
- 8 display processing unit
- 9 input processing unit
- 10 display device
- 11 keying device

[Fig. 2]

【図2】



I red

II green

green

III yellow

[Fig. 3]

【図3】

